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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/465,242	12/15/1999	Bruce E. Flinchbaugh	TI-27768	8650

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EXAMINER
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VU, NGOC YEN T

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/465,242

Applicant(s)

FLINCHBAUGH, BRUCE E.

Examiner

Ngoc-Yen T. Vu

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 December 1999.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-20 is/are rejected.
- 7) ☒ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Priority***

Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

### ***Information Disclosure Statement***

1. The information disclosure statement, filed 12/15/1999, has been placed in the application file, and the information referred to therein has been considered as to the merits.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-6, 11, 15, 16 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by DeLuca (US #6,407,777 B1).

Regarding claim 1, DeLuca teaches a method for operating a camera (20), comprising the steps of waiting for an operator action, and responding to the operator action by:

detecting and evaluating information from a scene in a continuing manner until a point in time at which it is determined that the information from the scene includes information which is

representative of a human facial characteristic and which satisfies a specified criteria (col. 2 line 21 – col. 4 line 35); and

recording an image of the scene corresponding substantially to the point in time (col. 2 lines 38-41).

As to claim 2, DeLuca teaches that said detecting step includes the step of detecting an image of radiation from the scene which includes the information representative of a facial characteristic (col. 2 line 61 – col. 4 line 2).

As to claim 3, DeLuca teaches that said evaluating step includes the steps of identifying in the image of radiation at least one pattern representative of a face, and evaluating the pattern relative to the specified criteria (col. 3 line 54 – col. 4 line 35).

As to claim 4, DeLuca teaches that the specified criteria includes a size limit criteria, and wherein said evaluating step includes the step of rejecting each identified pattern which is representative of a face but which fails to satisfy the size limit criteria (col. 3 lines 38-53; col. 5 lines 2-21).

As to claim 5, DeLuca teaches said evaluating step includes the steps of identifying in the image of radiation a plurality of patterns each representative of a respective face, and evaluating each such detected pattern relative to the specified criteria (col. 3 line 38 – col. 4 line 56).

As to claim 6, DeLuca teaches that said evaluating step includes the steps of identifying in the image of radiation a plurality of patterns each representative of a respective face, thereafter using a further criteria to select a subset of the patterns, and then evaluating only the selected patterns in the subset relative to the specified criteria (col. 3 line 38 – col. 4 line 56).

As to claim 11, DeLuca teaches that the specified criteria is whether a face is oriented toward the camera (col. 4 lines 3-27), and wherein said evaluating step includes the steps of identifying at least one face in the information from the scene, and analyzing whether each such identified face is oriented to face substantially toward the camera (col. 5 lines 11-28).

Regarding claim 15, DeLuca teaches a camera (20), comprising:

an operator actuatable element (col. 2 lines 22-25);

a section which is operative to wait for operator actuation of the element, and which is operative to respond to operator actuation of the element by (col. 2 lines 21-60):

detecting and evaluating information from a scene in a continuing manner until a point in time at which it is determined that the information from the scene includes information which is representative of a human facial characteristic and which satisfies a specified criteria (col. 2 line 41 – col. 4 line 35); and

recording an image of the scene corresponding substantially to the point in time (col. 2 lines 38-41).

As to claim 16, DeLuca teaches that said section is operative to effect the detection of the Information from the scene by detecting an image of radiation from the scene (col. 2 lines 20-65).

As to claim 20, DeLuca teaches that the specified criteria is whether a face associated with the facial characteristic is oriented to face substantially toward the camera (col. 4 lines 24-35).

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9-10, 12 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeLuca '777 in view of Maurer (US #6,272,231 B1).

As to claims 9 and 10, the claims differs from DeLuca in that they further require that the specified criteria is whether an eye is open or a mouth is closed, and wherein said evaluating step includes the steps of identifying at least one eye or one mouth in the information from the scene, and analyzing whether each such identified eye is open or mouth is closed. However, the limitations are well known in the art as shown in Maurer '231. In the same field of endeavor, Maurer '231 teaches an apparatus for sensing a person's facial movements, features or characteristics comprising detecting and evaluating a person's face and corresponding facial features (col. 3 lines 13-53). Maurer '231 also teaches that the apparatus evaluates whether an eye is open or a mouth is closed (See Figs. 13-15; col. 11 lines 20-45). In light of the teaching from Maurer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the digital camera taught in DeLuca by having evaluating a human facial characteristic which satisfies the specified criteria whether an eye is open or a

mouth is closed so as to implement the digital camera with a convenient and efficient facial feature sensing.

As to claim 12, the claim differs from DeLuca in that it further requires that said detecting step includes the step of detecting audible sound from the scene, the information representative of the facial characteristic being embodied in the detected audible sound. However, it is well known in the art to detect audible sound from the scene and to embody the detected audible sound in the human facial characteristic, as taught in Maurer '231 (see Fig. 18, col. 14 lines 28-34). In light of the teaching from Maurer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the digital camera taught in DeLuca by detecting audible sound from the scene and the information representative of the facial characteristic being embodied in the detected audible sound so as to provide the digital camera taught in DeLuca the capability of integrating facial sensing with speech analysis.

As to claim 17, see the Examiner's comments in the rejection of claim 12.

As to claim 18, see the Examiner's comments in the rejection of claim 9.

As to claim 19, see the Examiner's comments in the rejection of claim 10.

4. Claims 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeLuca '777 in view of Maurer '231 and further in view of Sakamoto et al. (US #5,561,796).

As to claims 13-14, the claims differ from DeLuca and Maurer in that they further require that said evaluating step includes the step of determining whether the detected audible sound is representative of a predetermined word or laughter. However, it is well known in the art to

search or to evaluate whether a detected audible sound is representative of a predetermined word or laughter, as taught in Sakamoto '796 (see col. 5 lines 10-64; col. 9 line 60 – col. 10 line 39). In light of the teaching in Sakamoto, it would have been obvious to one of ordinary skill in the art to modify the digital camera taught in DeLuca, as modified by Maurer, by determining whether the detected audible sound is a predetermined word or laughter so as to precisely determine lip motion of a person's facial movements.

*Allowable Subject Matter*

5. Claims 7-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

6. **Any response to this office action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 872-9314, (for formal communications intended for entry)

(for informal or draft communications, please label

"PROPOSED" or "DRAFT")



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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen Vu whose telephone number is (703) 305-4946. The examiner can normally be reached on Mon. - Fri. from 8:00 a.m. to 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber, can be reached on (703) 305-4929.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (703) 306-0377.

  
NGOC-YEN VU  
PRIMARY EXAMINER  
Art Unit 2612

NYV  
09/29/2003